Joint Integration Test Facility (JITF)
Status and
Evaluating Performance

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Overview

- **Background**

- **Testing Focus**

- **Integration Requirements**

- **DoDIIS Profile Requirement**

- **Integration Testing Results**

- **Conclusions/Future Actions**

JITF Background

- **JITF testing has been part of the DODIIS Certification Process for 7 years**
  - **First formal test conducted October 1995**
  - **185 tests conducted through FY02**
    - **Test counts do not include all no-test evaluations or re-tests**
- **Requirements documented in *DoDIIS JITF/NIMA Integration Requirements and Evaluation Procedures***
  - **Current version 4.1**
  - **Shared/updated with NIMA ITF**
  - **Located at www.if.afrl.af.mil/programs/jitf**

Testing Focus

- **109 total integration requirements**
  - **Not all requirements are applicable to every program**
    - **75% of applicable requirements must be met**
  - **Organized into 6 categories**
    - **Documentation (DOC requirements)**
    - **Installation (INST requirements)**
    - **Environment (ENV requirements**
    - **Operations (OPS requirements)**
    - **User Interface (GUI requirements)**
    - **Integration Security (INTSEC requirements)**
  - **Requirements have different weights**
    - **Impact Code 1 to Impact Code 4**
    - **Impact Code 1s must be corrected to continue testing**

Testing Focus

☑ **Installation - Install application using PMO documents**

☑ **Integration - Confirm ability to share resources with other applications**

☑ **Standards - Confirm software complies with DODIIS Profile of JTA**

☒ **Functionality - JITF does NOT conduct this testing. Functionality is tested during <u>Beta II</u>**

DoDIIS Profile Compliance

- **Addressed by JITF Requirement DOC-30**
  - **Software and standards compliance**
    - **Approved packages and versions**
- **Timely incorporation of updates**
  - **Track changes and updates to DODIIS Profile and incorporate into JITF test process**
  - **URL is http://felix.diac.dia.ic.gov/cgi-bin/dcforum/dcboard.cgi**
  - **Disseminate information to customers through TPOC and other forums**
- **Programs that do not meet DOC-30 must receive permission to proceed to Beta II from the DRB**

Web-based Applications

- **Level of testing effort depends on implementation**
  - **LESS (As little as 1 or 2 days)**
    - **Installation on a single, centralized server**
    - **Sole reliance on services & capabilities of web browsers**
  - **MORE (As much as 1 or 2 weeks)**
    - **Installation on servers that are either deployed to sites or installed at sites by site administrators**
    - **Loaded on client platforms (i.e., "thick" clients)**
    - **Use of multiple operating system versions**
  - **On-going technical exchanges with JIVA Portal PMO**
    - **Address any unique attributes required by Portal technology**

Test Results

- **JITF has a Performance Measurement Plan in place in compliance with Clinger-Cohen Act**
- **Six measurements based on enterprise goals**
  - **Goal 1 - Maximize customer satisfaction**
    - **Measure 1.A. - Customer Surveys**
    - **Measure 1.B - Timeliness of Test Reporting**
  - **Goal 2 - Increase quality of IMAs**
    - **Measure 2.A - Requirements Met**
    - **Measure 2.B - Requirements Not Met**
  - **Goal 3 - Maximize efficiency**
    - **Measure 3.A - Schedule Volatility**
    - **Measure 3.B - Comments Against Test Report**

Schedule

- **Posted weekly on JITF Internet site and VTF**
  - **All Beta I tests & JITF/JITC/Security participation**
  - **Re-tests**
  - **Documentation reviews in advance of test event**
  - **"Quick-Look" evaluations (patches, etc.)**
  - **Pre-evaluations**
- **Schedule volatility is extremely high**
  - **Historically 70% to 90% of programs move test dates within 30 days of their schedule test event**
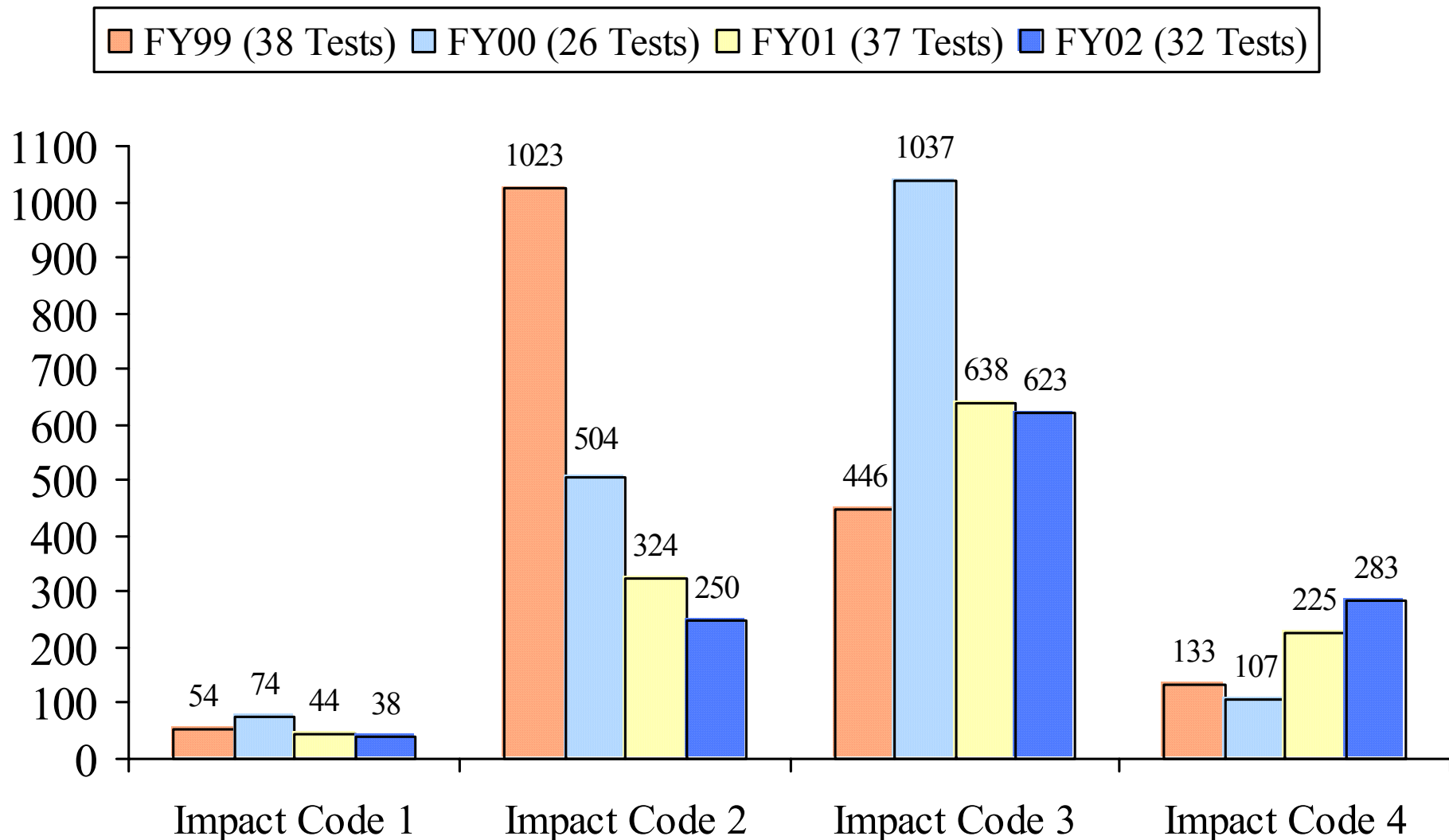- **Schedule volatility is negatively effecting all test organizations**

Activities for FY02

SERVICE/ AGENCY	TESTS/RE-TESTS	PROGRAMS	Pre-Evals No-Test Letters Patch Evals	TEST SUPPORT
DIA	10	9	12	
Air Force	18	9	16	
Navy	2	2		
Army			1	
NIMA	1	1		3
NSA	1	1	1	
NRO			1	
TOTAL	32	22	31	3

Test Results
Test Findings per Fiscal Year

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Test Results
Average Test Scores

Legend: ■ FY 99 □ FY 00 □ FY 01 ■ FY 02

Number of tests

Y-axis: **Percentage of Requirements Met** (60% to 100%)

X-axis categories: NIMA, DIA, USAF, Army, Navy, NSA

Data labels (number of tests):
- NIMA: 9, 13, 5, 3
- DIA: 9, 8, 16, 10
- USAF: 9, 11, 22, 18
- Army: 2, 1, 1, 0
- Navy: 0, 3, 1, 2
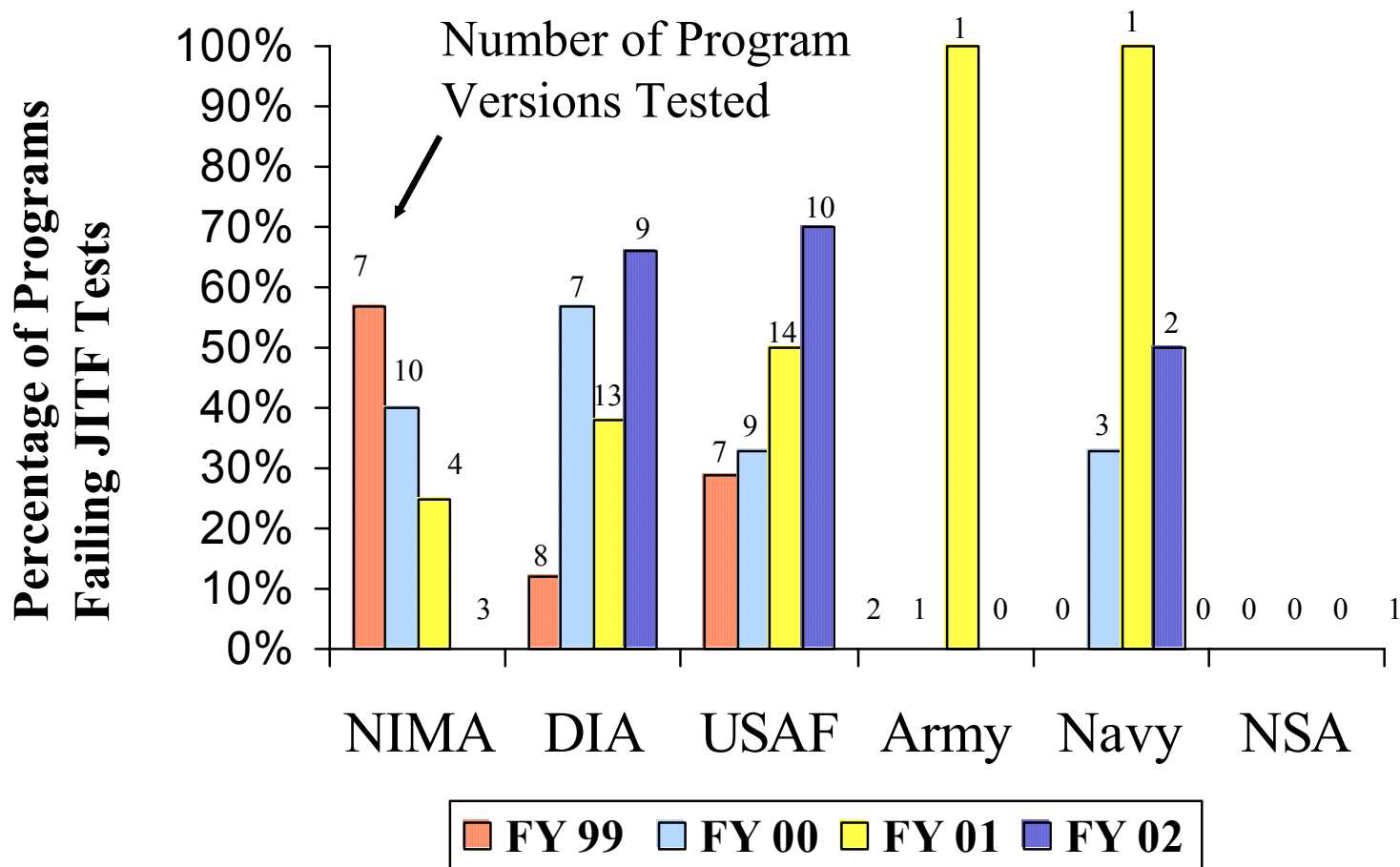- NSA: 0, 0, 0, 1
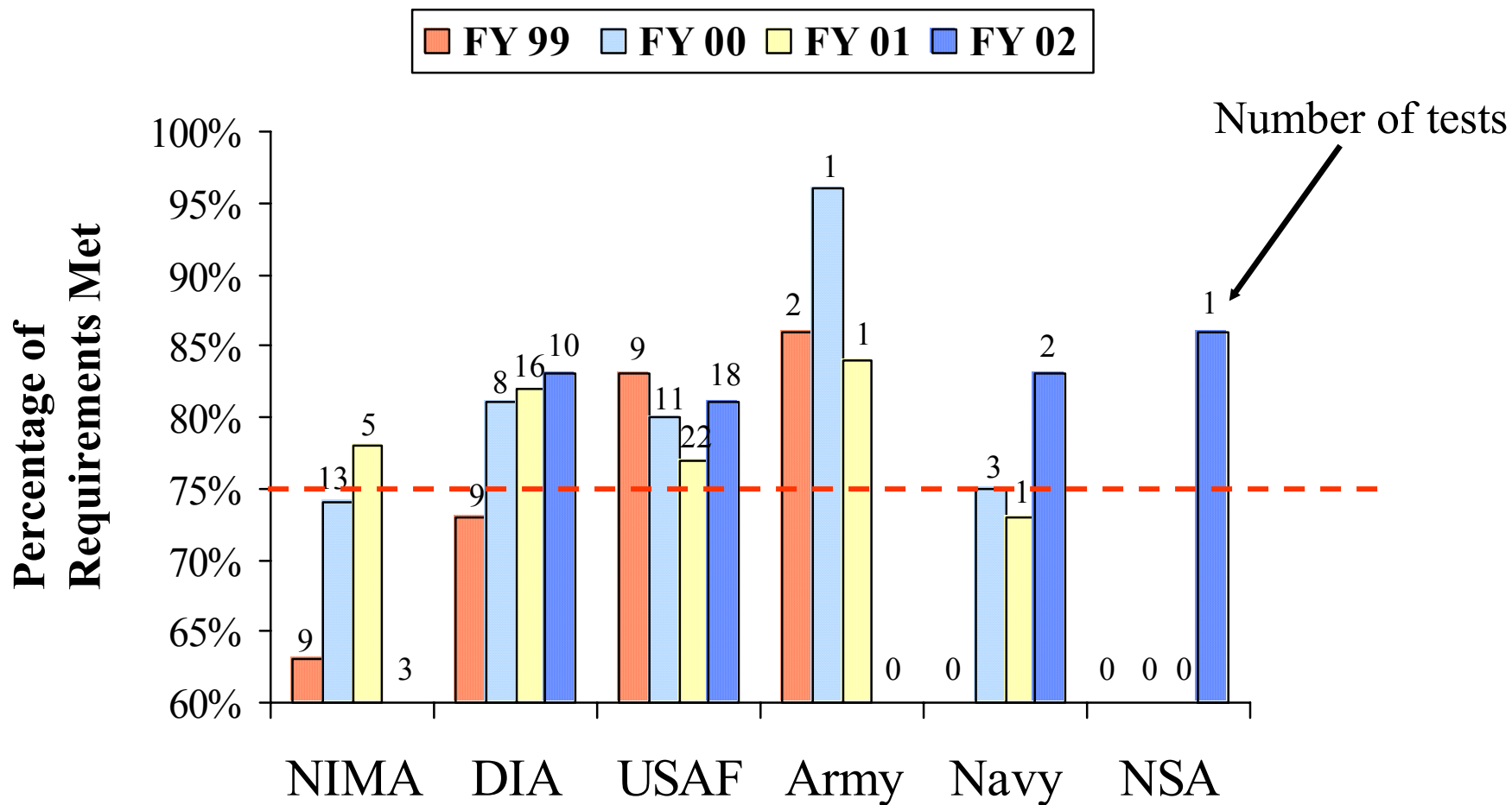
NOTE: Does not include Y2K only tests

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Test Results
Failure Rates

NOTE: Does not include Y2K only tests

Future Actions

- **VTF Improvements**
  - **New version is now available on Intelink**
- **New version of Integration Test Procedures**
  - **Enhanced explanation for Windows procedures**
  - **Continued improvement/clarification**
  - **Submit comments to JITF at raguskys@rl.af.mil by 31 December**
    - **Date is subject to change to due current events**
- **Security Documentation Management Proposal**
  - **Submitted a proposal to DIA/SYS-4 to assist in accessing all DODIIS Program's security documentation**
    - **Documents will be made available on Intelink via login/password using Information Management Services (IMS) at AFRL if proposal is approved**

Conclusions

- **Process needs to be improved/enforced**
  - **Slips in PMO documentation delivery will slip test schedule**
    - **Adequate preparation time is REQUIRED**
    - **Schedule flexibility is a MUST**
  - **JITF will re-implement Performance Measurement Plan**
    - **Identify ways to more readily identify statuses for programs working Beta I problems**
  - **Pre-evals are helping – but still too many Code 1s**
- **IMAs continue to improve percentage of Integration Requirements met**
  - **FY99: 73%   FY00: 78%**
  - **FY01: 79%   FY02: 83%**
    - **Requirements have become more stringent over time so percentage improvement is significant**

Points of Contact

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